

**Chesterville Sand & Gravel, Inc.**  
**Franklin County**  
**Chesterville, Maine**  
**A-917-71-A-N**

**Departmental**  
**Findings of Fact and Order**  
**Air Emission License**

After review of the air emission license application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

**I. REGISTRATION**

**A. Introduction**

Chesterville Sand & Gravel, Inc., located in Chesterville, Maine has applied for an Air Emission License, permitting the operation of their portable rock crushing operation.

**B. Emission Equipment**

**Rock Crushers:**

<u>Designation</u>	<u>Process Rate (tons/hour)</u>	<u>Control Device</u>	<u>Date of Manufacture</u>
Primary Crusher	25	Spray Nozzles	1952
Secondary Crusher	25	Spray Nozzles	1952

**Diesel Units:**

<u>Source ID</u>	<u>Max. Capacity</u>	<u>Max. Firing Rate</u>	<u>Power Output</u>
Generator #1	0.83 MMBtu/hr	6.0 gal/hr	120 hp

**C. Application Classification**

A new source is considered a major source based on whether or not expected emissions exceed the "Significant Emission Levels" as defined in the Department's regulations. The Department has determined Chesterville Sand & Gravel, Inc. is a minor source and the application has been processed through Chapter 115 of the Department's regulations.

**II. BEST PRACTICAL TREATMENT**

**A. Introduction**

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Department regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in Chapter

100 of the Air Regulations. BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

**B. Rock Crushers**

The Primary and Secondary portable crushers were each manufactured in 1952, each with a rated capacity of 25 tons/hr. EPA NSPS Subpart OOO for Nonmetallic Mineral Processing Plants applies to fixed rock crushers with capacities greater than 25 tons/hr and portable rock crushers with capacities greater than 150 tons/hr, constructed after August 31, 1983. As such, the Primary and Secondary portable rock crushers are not subject to NSPS requirements.

The regulated pollutant from the rock crushers is particulate emissions. To meet the requirements of BACT for control of PM emissions from the rock crushers, Chester ville Sand & Gravel, Inc. shall operate and maintain water sprays on the rock crushers as needed. Visible emissions from the rock crushers shall be limited to no greater than 10% opacity on a six (6) minute block average basis.

**C. Generator #1**

Generator #1 has a heat input of 0.83 MMBtu/hr, based on 120 BHP output and 35% efficiency. BACT for the engine is the following:

1. Annual diesel fuel use is limited to 15,000 gallons per calendar year.
2. Chapter 106 regulates fuel sulfur content, however the use of 0.05% sulfur by weight fuel is BACT.
3. SO<sub>2</sub> emission data was based on fuel sulfur mass balance.
4. NO<sub>x</sub>, CO and VOC emission limits are based upon AP-42 data dated 10/96 for diesel engines smaller than 600 horsepower.
5. PM and PM<sub>10</sub> emission rates were based upon BACT of 0.12 #/MMBtu.
6. Opacity from the engine shall not exceed 20% on a six (6) minute block average basis, except for two (2) six (6) minute block averages in a 3-hour period.

**D. Stock Piles and Roadways**

Visible emissions from a fugitive emission source shall not exceed an opacity of 20 percent, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20 percent in any one (1) hour.

**E. General Process Emissions**

Visible emissions from a general process (including conveyor belts) shall not exceed an opacity of 10% on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period.

**F. Annual Emissions**

Annual emissions were based on 15,000 gallons per calendar year of diesel fuel in Generator #1, 0.05% sulfur by weight maximum.

**Total Annual Emission for the Facility**  
(used to calculate the annual license fee)

<b>Pollutant</b>	<b>Tons/Year</b>
PM	<b>0.1</b>
PM <sub>10</sub>	<b>0.1</b>
SO <sub>2</sub>	<b>0.1</b>
NO <sub>x</sub>	<b>4.6</b>
CO	<b>1.0</b>
VOC	<b>0.4</b>

**III. AMBIENT AIR QUALITY ANALYSIS**

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a renewal source shall be determined on a case-by-case basis. Based on the above total facility emissions, Pike is below the emissions level required for modeling and monitoring.

**ORDER**

Based on the above Findings and subject to conditions listed below the Department concludes that the emissions from this source:

will receive Best Practical Treatment,  
will not violate applicable emission standards,  
will not violate applicable ambient air quality standards in  
conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-917-71-A-N, subject to the following conditions:

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions. [MEDEP Chapter 115]
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [MEDEP Chapter 115]
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either

the control technology analysis or the ambient air quality standards analysis, or both. [MEDEP Chapter 115]

- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [MEDEP Chapter 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to 38 M.R.S.A. § 353. [MEDEP Chapter 115]
- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [MEDEP Chapter 115]
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [MEDEP Chapter 115]
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [MEDEP Chapter 115]
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [MEDEP Chapter 115]
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [MEDEP Chapter 115]
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
  - A. perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
    1. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
    2. pursuant to any other requirement of this license to perform stack testing.

- B. install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
  - C. submit a written report to the Department within thirty (30) days from date of test completion.  
[MEDEP Chapter 115]
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
- A. within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
  - B. the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
  - C. the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.  
[MEDEP Chapter 115]
- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [MEDEP Chapter 115]
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation.  
[MEDEP Chapter 115]
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall

prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [MEDEP Chapter 115]

(16) **Rock Crushers**

- A. Chesterville Sand & Gravel, Inc. shall maintain spray nozzles for particulate control on the rock crushers and operate them as necessary to limit visible emissions to no greater than 10% opacity on a six (6) minute block average basis. [MEDEP Chapters 115, BACT and 101]
- B. Chesterville Sand & Gravel, Inc. shall maintain a log detailing the maintenance on the water spray nozzles. The maintenance log shall be kept on-site at the rock crushing location. [MEDEP Chapter 115, BACT]
- C. Chesterville Sand & Gravel, Inc. shall maintain a log detailing and quantifying the hours of operation on a daily basis for the rock crushers. The operation log shall be kept on-site at the rock crushing location. [MEDEP Chapter 115, BACT]

(17) **Generator #1**

- A. Fuel use in Generator #1 shall not exceed 15,000 gallons per calendar year of diesel fuel, with a sulfur content not to exceed 0.05% by weight. Fuel use records and receipts (showing the quantity and percent sulfur of the fuel) for the diesel shall be maintained to demonstrate compliance.  
[MEDEP Chapter 115, BACT]
- B. Emissions from Generator #1 shall be limited to the following [MEDEP Chapter 103 and Chapter 115, BACT]:

<u>Pollutant</u>	<u>lb/hr</u>
PM	0.10
PM <sub>10</sub>	0.10
SO <sub>2</sub>	0.04
NO <sub>x</sub>	3.66
CO	0.79
VOC	0.29

- C. Visible emissions from Generator #1 shall not exceed 20% on a six (6) minute block average basis, except for two (2) six (6) minute block averages in a 3-hour period.  
[MEDEP Chapter 101]

(18) **Stockpiles and Roadways**

Visible emissions from a fugitive emission source shall not exceed an opacity of 20 percent, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20 percent in any one (1) hour.  
[MEDEP Chapter 101]

**(19) General Process Sources**

Visible emissions from any general process source shall (including conveyor belts) not exceed an opacity of 10% on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period. [MEDEP Chapter 101 and Chapter 115, BACT]

**(20) Equipment Relocation** [MEDEP Chapter 115, BACT]

A. Chesterville Sand & Gravel, Inc. shall notify the Bureau of Air Quality, by a written notification at least 48 hours prior to relocation of any equipment carried on this license. The notification shall be sent to the address below or to a Department Regional Office:

Attn: Relocation Notice  
Maine DEP  
Bureau of Air Quality  
17 State House Station  
Augusta, ME 04333-0017

The notification shall include the address of the equipment's new location, an identification of the equipment and the license number pertaining to the relocated equipment. Written notice may be sent by mail, facsimile (fax), or e-mail.

B. Written notification shall also be made to the municipality where the equipment will be relocated, except in the case of an unorganized territory where notification will be made to the respective county commissioners.

(21) Chesterville Sand & Gravel, Inc. shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard. [38 MRSA §605-C].

(22) Chesterville Sand & Gravel, Inc. shall keep a copy of this Order on site, and have the operator(s) be familiar with the terms of this Order. [MEDEP Chapter 115, BPT]

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(23) **Payment of Fees**

Chesterville Sand & Gravel, Inc. shall pay the annual air emission license fee within 30 days of **July 30th** of each year. Pursuant to 38 MRSA §353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for revocation of the license under 38 MRSA §341-D, subsection 3. [38 MRSA §353-A]

DONE AND DATED IN AUGUSTA, MAINE THIS                      DAY OF                      2005.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: \_\_\_\_\_  
DAWN R. GALLAGHER, COMMISSIONER

**The term of this license shall be five (5) years from the signature date above.**

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: May 2, 2005

Date of application acceptance: May 11, 2005

Date filed with the Board of Environmental Protection \_\_\_\_\_

This order prepared by Mark E. Roberts, Bureau of Air Quality